

# SNIFFER® UNIVERSITY'S Total Network Visibility Curriculum

PERFORMANCE MANAGEMENT	Network Baselineing & Reporting		Troubleshooting Oracle7 SQL*Net with Expert		Troubleshooting Sybase SQL with Expert	
UPPER-LAYER TECHNOLOGIES	TCP/IP Network Analysis & Troubleshooting		Upper-Layer Protocol Analysis & Troubleshooting		Novell NetWare Network Analysis & Troubleshooting	
NETWORK INTERFACES	Ethernet Network Analysis & Troubleshooting	Token Ring Network Analysis & Troubleshooting	FDDI Network Analysis & Troubleshooting	Internetwork Analysis & Troubleshooting	Switched Network Analysis & Troubleshooting	
EXPERIENCE TECHNOLOGY	Troubleshooting with the Sniffer Network Analyzer		Managing the Enterprise Network with Distributed Sniffer System		SharpShooter Self-Study Guide	

## Troubleshooting with the Sniffer Network Analyzer

*Troubleshooting with the Sniffer® Network Analyzer* lays a strong foundation for learning basic network management skills. This course also teaches a logical troubleshooting methodology for capturing and analyzing data frames. Using this blend of skills and methodologies, students learn how to troubleshoot, maintain, optimize, and monitor network traffic.

Overall, *Troubleshooting with the Sniffer Network Analyzer* focuses on learning to use all of the features and capabilities of the Sniffer Network Analyzer like a true expert.

**Course Code:** TC-101E

**Prerequisites:** None

**Duration:** 3 days

## Ethernet Network Analysis & Troubleshooting

*Ethernet Network Analysis & Troubleshooting* focuses on the identification, analysis, and troubleshooting of Ethernet LAN problems using the Expert functions of the Sniffer Network Analyzer. Classroom discussions encompass Ethernet specifications, topologies, and common problems. Students learn how to diagnose and proactively plan for situations and events on their Ethernet networks. Students are presented with a series of case studies that highlight specific network problems. These exercises provide an opportunity to apply network analysis and troubleshooting techniques.

**Course Code:** TC-102

**Prerequisite:** TC-101E

**Duration:** 2 days

## Token Ring Network Analysis & Troubleshooting

*Token Ring Network Analysis & Troubleshooting* focuses on the identification, analysis, and troubleshooting of token ring LAN problems using the Sniffer Network Analyzer. Classroom discussions encompass token ring specifications, topologies, and common problems. Students learn how to diagnose and proactively plan for situations and events on their token ring networks. Students are presented with a series of case studies that highlight specific network problems. These exercises provide an opportunity to apply network analysis and troubleshooting techniques.

**Course Code:** TC-105

**Prerequisite:** TC-101E

**Duration:** 2 days

## Upper-Layer Protocol Analysis & Troubleshooting

*Upper-Layer Protocol Analysis & Troubleshooting* provides a survey of nine upper-layer protocols. This course focuses on analyzing and troubleshooting upper-layer protocols — including TCP/IP, NetWare, Windows NT, LLC, AppleTalk, DECnet, SMB, NetBIOS and Banyan — using the Sniffer Network Analyzer. Students learn how the components of the various protocols interoperate to provide network services. The Sniffer Network Analyzer is used to examine, analyze, and dissect components from the field technician's perspective. Knowledge is reinforced using a variety of hands-on exercises and follow-along activities. Focus on protocol modules in order of priority set by class members.

**Course Code:** TC-114

**Prerequisite:** TC-101E

**Duration:** 2 days

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### The SharpShooter Self-Study Guide

*The SharpShooter® Self-Study Guide* focuses on using SharpShooter for NFS (Network File Server) performance management in a multiprotocol environment.

Using hands-on exercises, students learn how to operate SharpShooter and produce custom graphs and reports. At the end of this self-guided course, students will be able to use Sharpshooter to diagnose and solve the system bottlenecks that can result from insufficient CPU, low memory, poor client/server system design, NFS protocol problems, wireload, and disk I/O problems.

**Course Code:** TC-010

**Prerequisite:** None

**Duration:** 6-8 hours

### Internetwork Analysis & Troubleshooting

*Internetwork Analysis & Troubleshooting* focuses on monitoring, fine-tuning, analyzing, and troubleshooting the WAN segment of enterprise-wide networks using the Sniffer Internetwork Analyzer. Discussions include specifications, protocol analysis, and case studies relating to the management of point-to-point, packet-switched, ISDN, and Frame Relay internetworks.

**Course Code:** TC-107

**Prerequisite:** TC-101E

**Duration:** 3 days

### FDDI Network Analysis & Troubleshooting

*FDDI Network Analysis & Troubleshooting* focuses on identifying, analyzing, and troubleshooting FDDI problems using the FDDI Sniffer Network Analyzer. Discussions include specifications of the PMD, PHY, MAC and SMT layers. At the end of the course, the student will be able to use the FDDI Sniffer Network Analyzer to study frames, protocol layers, ring order, ring topology, and station types to isolate FDDI problems.

**Course Code:** TC-108

**Prerequisite:** TC-101E

**Duration:** 2 days

### Managing the Enterprise Network with Distributed Sniffer System

*Managing the Enterprise Network with Distributed Sniffer System®* is designed to assist in planning, installing, expanding, and configuring Distributed Sniffer Systems. Student learn how to make serial connections to Sniffer Servers as well as how to take advantage of the advanced capabilities of Sniffer Servers, such as acquiring data in an unattended mode and creating reports from that data. Special focus is placed on setting-up the Sniffer Server to contact the SniffMaster® Console based on Expert thresholds.

**Course Code:** TC-DSS

**Prerequisite:** TC-101E

**Duration:** 3 days

### Switched Network Analysis & Troubleshooting

*Switched Network Analysis & Troubleshooting* introduces students to the many aspects of newer emerging network technologies. This course focuses on switching concepts, Fast Ethernet, and ATM. Students learn how to operate the new ATM Sniffer Network Analyzer. Students use the Sniffer Network Analyzer to examine and analyze ATM traffic and protocols using ATM trace files in hands-on exercises designed to reinforce knowledge. An computer based training (CBT) module is included and must be completed prior to classroom days.

**Course Code:** TC-110

**Prerequisites:** TC-101E + 102 or 105

**Duration:** 2 days + CBT

### Novell NetWare Network Analysis & Troubleshooting

*Novell NetWare Network Analysis & Troubleshooting* focuses on analyzing the internal operations of NetWare LANs using the Sniffer Network Analyzer. Students learn how the components of the NetWare protocol stack interoperate to provide end-user and programmer services. This course takes the student inside the NetWare protocol stack. The Sniffer Network Analyzer is used to examine, analyze, and dissect NetWare components from the field technician's perspective. Knowledge is reinforced with hands-on exercises and follow-along activities.

**Course Code:** TC-106

**Prerequisites:** TC-101E + 102 or 105

**Duration:** 4 days

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## Troubleshooting Sybase SQL with Expert

*Troubleshooting Sybase SQL with Expert* focuses on troubleshooting Sybase applications using the Sniffer Network Analyzer. Students learn how the components of the Sybase TDS protocol interoperate with SQL queries and responses. This course takes the student inside the TDS protocol. The Sniffer Network Analyzer is used to examine, analyze, and dissect TDS components from the field technician's perspective. Knowledge is reinforced with hands-on exercises and follow-along activities.

**Course Code:** TC-116

**Prerequisites:** TC-101E + 102 or 105

**Duration:** 2 days

## Troubleshooting Oracle7 SQL\*Net with Expert

*Troubleshooting Oracle7 SQL\*Net with Expert* focuses on protocol analysis in an Oracle7 database environment using the Sniffer Network Analyzer. Students will learn how Transparent Network Substrate (TNS) is used to provide communications for SQL commands, replies, and data. Inefficient SQL programming and its effect on the network will be measured, and the impact of underlying protocols such as TCP/IP, Novell NetWare, and NetBIOS will be brought into play.

This course takes the students through the steps necessary to evaluate and troubleshoot an Oracle7 implementation effectively. Knowledge is reinforced with hands-on exercises and analysis demonstrations, including the new Router Expert module for Sniffer Network Analyzer 5.0

**Course Code:** TC-112

**Call for Prerequisites:** 800-395-3151

**Duration:** 3 days

## TCP/IP Network Analysis & Troubleshooting

*TCP/IP Network Analysis & Troubleshooting* focuses tightly on the protocols and issues facing network managers and technicians in TCP/IP and NFS environments. Special focus is placed on troubleshooting common problems at all layers of the TCP/IP stack.

Students use the Sniffer Network Analyzer to identify problems and investigate solutions. The Sniffer Network Analyzer is utilized to examine, analyze, and dissect components from the field technician's perspective. Knowledge is reinforced by more than thirty different hands-on exercises designed to augment follow-along activities.

**Course Code:** TC-103

**Prerequisites:** TC-101E + 102 or 105

**Duration:** 3 days

## Network Baselineing & Reporting

*Network Baselineing & Reporting* shows you how to assess the performance characteristics of networks and develop baseline reports. This course teaches the concepts, purposes, and procedures for the collection and analysis of network performance data, as well as techniques for reporting and graphing baseline results. The resulting reports can be used in capacity planning, tracking trends, planning reconfigurations, and setting network management alarm thresholds.

**Course Code:** TC-BASE

**Prerequisites:** TC-101E + 102 or 105

**Duration:** 4 days



TOTAL NETWORK VISIBILITY

Network General Customer Services

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Menlo Park, California 94025

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Internet: [snifferu@ngc.com](mailto:snifferu@ngc.com)

Registration Hotline: (800) 395-3151 ➔ World Wide Web: <http://www.ngc.com>

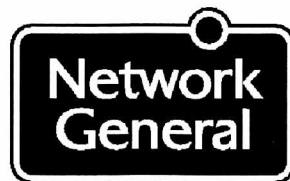
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# Sniffer® University

## Trace Files

### *on CD!*

To reserve your copy, please fill out this form and  
fax it to Network General at: **(415) 327-8720**.  
(Please allow 8 weeks for delivery.)



TOTAL  NETWORK VISIBILITY

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Ship-to address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

*Sniffer University*  
**COURSE EVALUATION**

Course: \_\_\_\_\_  
Instructor: \_\_\_\_\_  
Date: \_\_\_\_\_  
Location: \_\_\_\_\_

Student Name: \_\_\_\_\_  
(optional)  
Company: \_\_\_\_\_

Student's Title:    ☐ Network Administrator  
(Mark one only)   ☐ Network Technician  
                         ☐ Network Manager  
                         ☐ Network Designer  
                         ☐ Software Engineer

☐ Field Systems Engineer  
☐ Quality Assurance Engineer  
☐ Technical Support Engineer  
☐ Technical Instructor  
☐ Other \_\_\_\_\_

In order for us to continue to meet your training needs and interests, please take a moment to share your reactions to this program. This evaluation form was designed to help assure the quality and effectiveness of our training program. Please indicate your degree of Agreement or Disagreement with each statement.

Please use a #2 pencil and fill in the box completely.

**STRONGLY  
DISAGREE**

**STRONGLY  
AGREE**

**A. COURSE DESIGN AND MATERIAL**

- A1. The program content was practical and useful.  
A2. The participant materials will be a good reference source.  
A3. The hands-on exercises were a useful aid to learning.  
A4. There were sufficient examples and chances to practice.

①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**B. INSTRUCTOR EFFECTIVENESS**

- B1. The instructor was knowledgeable in the subject.  
B2. The instructor's explanations were clear.  
B3. The instructor responded to questions thoroughly.  
B4. The methods, manner and approaches used by the instructor were effective.

①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**C. LOGISTICS**

- C1. The NGC services administrators were responsive to your needs during the registration process.  
C2. The classroom was comfortable and conducive to learning.  
C3. The training site provided all the services you needed.

①	②	③	④	⑤
①	②	③	④	⑤
①	②	③	④	⑤

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Please Turn Over**

**D. TRAINING EXPERIENCE**

- D1. The training program was relevant to your needs.  
D2. The training program helped develop skills useful to your job.  
D3. This training program will allow you to save time and/or money.  
D4. Overall, this training program met your expectations.

**STRONGLY  
DISAGREE**

**STRONGLY  
AGREE**

- |   |   |   |   |   |
|---|---|---|---|---|
| ① | ② | ③ | ④ | ⑤ |
| ① | ② | ③ | ④ | ⑤ |
| ① | ② | ③ | ④ | ⑤ |
| ① | ② | ③ | ④ | ⑤ |

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

How would you rate your level of skill or knowledge pertaining to the course content?

	(Novice)		(Expert)		(Novice)		(Expert)				
<b>BEFORE THE PROGRAM</b>	①	②	③	④	⑤	<b>AFTER THE PROGRAM</b>	①	②	③	④	⑤

If there were something you would like to add, delete or change in this program, what would it be?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Network General would like to include some of your comments in our training literature to better inform other potential students. We would appreciate your consent to use your comments.

I hereby authorize Network General Corporation to use my name, company name and comments about this course in any promotional literature.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Other individuals within your organization who might benefit  
from the Technical Training courses offered by Network General:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

*Thank You!*